**DANIEL COSTELLOE**

**SUMMARY**:

* **Accomplished Data Analytics Consultant with 20+ years of experience delivering high-impact solutions in banking and financial services**.
* **Expert level skills in data analysis and predictive model development, machine learning, and AI. Developed, validated, and audited econometric forecasting/stress testing models.**
* Specialized in supporting PPNR aggregation, CCAR model validation, and credit risk analytics for top-tier institutions including **TD Bank, Santander, and PwC.**
* Strong track record improving model monitoring, enhancing regulatory documentation, and aligning implementations with enterprise and regulatory standards.
* Skilled in transforming large-scale financial data through **SAS, SQL, Python, and R**, with experience across SAS Viya, Azure, and cloud migration initiatives.
* **Commercial products: For Deloitte, audited CCAR models for commercial businesses raising audit points and proposing requirements for remediation. Monitored commercial loans for Citibank.**
* Adept at cross-functional collaboration with **Treasury, Finance, and Model Risk teams** to ensure the integrity, scalability, and compliance of model execution and data infrastructure.
* Proven track record of collaborating with cross-functional teams to deliver high-quality solutions.

**EDUCATION:**

* **Master of Science in Analytics** (Data Science), Georgia Institute of Technology o Computing for Data Analytics o Data Analysis for Continuous Improvement
* o Data and Visual Analytics o Data Mining and Statistical Learning

o Digital Marketing

o Financial Modeling

o Regression Analysis

o Simulation

o Technologies:

AI, Machine Learning, AWS, EC2, Google Cloud Platform, Azure Machine Learning,

Docker, Databricks, Spark, PySpark, Scala, Python, R, SQL, SQLite, Tableau, JavaScript and D3.

* **Master of Business Administration,** Baruch College, City University of New York
* **Bachelor of Business Administration,** Baruch College, City University of New York • Passed PhD qualifying exams, Stevens Institute of Technology

**CERTIFICATIONS :**

* **AWS Certified Cloud Practitioner**
* **IBM Data Science Professional Certification: Nine courses of Data Science, Python, and Machine Learning**
* Snowflake: **Data Cloud Deployment Framework**, Hands on Essential Data Warehouse • Johns Hopkins University Certificates: **R Programming, The Data Scientist’s Toolbox**
* **SAS:**
  + SAS Statistical Business Analyst Using SAS 9: Regression and Modeling o SAS Advanced Programmer for SAS 9, SAS Base Programmer for SAS 9
  + SAS Business Intelligence Content Developer for SAS 9 o SAS Predictive Modeler Using SAS Enterprise Miner 5.2 o SAS Badge: Using SAS Anti-Money Laundering in SAS Viya
* **ACAMS:**
  + ACAMS Certified Transaction Monitoring Associate
  + ACAMS Anti-Money Laundering certificate: AML Foundations (V3)
* Blockchain Council: Certified Cryptocurrency Trader
* Six Sigma Black Belt
* Google: Foundations of Project Management

**TECHNICAL SKILLS:**

* Programming Languages: SAS (SAS/Macros), SQL, Python, R
* Data Analysis: SAS, Python (Sci-Kit Learn, Matplotlib, Pandas, PyTorch, TesnorFlow), R
* Skilled in time series analysis and predictive modeling

**PROFESSIONAL EXPERIENCE:**

**Data Sailing LLC, Independent Consultant/Contractor - Remote 11/2021 – Present**

* **Provide specialized consulting services in data analysis, SAS/Python programming, and predictive modeling.**
* Deliver high-impact solutions for complex data challenges, leveraging expertise in credit risk modeling, CCAR, and advanced analytics. Successfully managed client projects while pursuing advanced education in analytics.

**Clients:**

**Kookmin Bank project, Consultant/Contractor 10/2024 - 12/2024**

* Reviewed model monitoring documentation and processes for the investment bank specialized lending model of the U.S. branch (under $10B in assets) of an international bank.
* Assessed compliance of model governance and documentation practices with applicable regulations.
* Provided recommendations to enhance regulatory alignment and strengthen model monitoring processes.

**PricewaterhouseCoopers (PwC), SAS Technical Lead (Contract) 06/2024 - 08/2024**

* Cloud Migration: Evaluated options for cloud migration of insurance industry repricing project.
* Refactoring: Generated refactoring options with a focus on current pain points.
* Created project plan of steps needed for cloud migration.

**Georgia Institute of Technology, Graduate Practicum (project for outside company) 01/2024 - 04/2024**

* AI/ML Development: Developed AI Convolutional Neural Networks (CNNs) models for tumor detection in breast ultrasound images using Python, PyTorch, CUDA, and torchvision.
* Hyperparameter Tuning: Conducted ANOVA to evaluate main effects and interactions among CNN model hyperparameters.

**TD Bank, Consultant/IT Data Analyst - Remote 07/2022 - 10/2023**

* Standardized and integrated scoring model code to improve cross-source data consistency, resulting in an 80% reduction in data integrity test run time and increased throughput for forecast preparation workflows.
* **Developed and maintained model monitoring programs using SAS Viya, SAS CAS, SQL, and SAS Analytics ETL, ensuring continuous performance validation of credit risk models used in loan balance forecasting.**
* **Built automated data pipelines and ETL workflows to support real-time data ingestion and transformatio**n, directly contributing to the production of accurate and timely stress test forecasts in line with regulatory and organizational standards.
* Testing: Created and ran functional testing for successful implementation of new scoring code.
* Analyzed and transformed data for dashboard.

**PricewaterhouseCoopers (PwC), Statistical Credit Model Developer/Validator (Contract) 11/2021 - 05/2022**

* Executed **data analysis and visualization** of credit risk scoring outputs to assess model behavior and risk sensitivity under stressed macroeconomic conditions.
* Refactored Comprehensive Capital Analysis and Review (CCAR) models in Python, SAS EG, SQL, and Excel VBA to **improve computational efficiency, modularity, and maintainability**.
* Validated CCAR models, performed shock analysis, **and authored detailed model validation reports in alignment with regulatory expectations.**
* Standardized and integrated code for credit risk scoring models, focusing on Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD) for Comprehensive Capital Analysis and Review (CCAR), Current Expected Credit Loss (CECL), and International Financial Reporting Standard 9 (IFRS9).
* Validated econometric time series stress test models (CCAR), conducted shock analysis, and authored model validation reports to ensure regulatory compliance.

**Bank of America, Consultant/Vice President/Quantitative Finance Analyst- New York, NY 07/2019 - 11/2021**

* **Analyzed complex data requirements** across retail product lines to support economic scenario model development, data sourcing, validation, and transformation, ensuring alignment with modelling, regulatory, and reporting needs
* **Led server migration** of SAS-based economic scenario generation models, resulting in improved performance and significant infrastructure cost savings.
* Provided **production support** for economic scenario models using **SAS Enterprise Guide, SQL, Python, and R**, ensuring seamless model runs and data integrity across retail portfolios.
* Developed **Python scripts** to parse inputs and outputs from legacy SAS programs and generate **model data lineage visualizations**, enhancing **data governance and traceability**, cutting processing time from days to minutes.

**UBS, Consultant/Data Modeler - New York, NY 10/2018 - 01/2019**

* **Conducted data analysis and validation to support model performance review and redevelopment, documented findings in support of model audit readiness.**
* **Performed model remediation and enhancement for legacy Python and SAS-based forecasting models, ensuring alignment with internal risk governance standards and regulatory expectations**
* Designed and implemented a data-driven scoring system using SAS to automate the evaluation of forecast accuracy and sensitivity testing across multiple regression and time series models.
* Gathered and translated business requirements into detailed model specifications, facilitating collaboration between model developers, risk teams, and technology stakeholders.
* Authored comprehensive model development documentation, including methodology, data sources, assumptions, and validation logic, to support governance and approval processes.

**Global Atlantic Financial Group, Consultant - Brighton, MA 07/2018 - 10/2018**

* **Developed interactive and modular SAS programs to efficiently prepare and transform large insurance datasets for use by the Model Development Group, supporting actuarial and financial forecasting models.**
* Identified and implemented automation solutions that reduced programming development time by 85%, significantly improving model deployment timelines and operational efficiency.
* Collaborated closely with modelers and actuaries to ensure data readiness, quality, and alignment with model specifications and business objectives.

**Santander Holdings USA, - Director - New York, NY 02/2016 - 04/2018**

* **Coordinated with key stakeholders across Risk, Finance, and Technology to ensure timely delivery of data, forecasts, and documentation in line with regulatory timelines and internal controls.**
* **Led a team of Senior Data and SAS Programming Analysts responsible for aggregating Pre-Provision Net Revenue (PPNR) and credit loss forecasts for Comprehensive Capital Analysis and Review (CCAR) submissions**.
* Played a key role in Santander’s first successful CCAR pass, ensuring regulatory readiness through high-quality data aggregation and model execution.
* Developed and maintained SAS-based frameworks for Internal Capital Adequacy Assessment Process (ICAAP) and IFRS 9 reporting using SAS Grid, SAS Cloud Analytics Services (CAS), ETL processes, and SQL.
* Served on a cross-functional model review committee, advising on methodology, assumptions, and implementation of econometric stress testing models.

**Deloitte Consulting LLP, Specialist Master - New York, NY 01/2015 - 02/2016**

* Audited CCAR models for commercial businesses raising audit points and proposing requirements for remediation.
* **Evaluated a client’s big data platform, in the process refined business and system requirements.**
* **Wrote model validation documentation for various model validation projects and audit projects**.
* Built CCAR time series stress testing models and logistic regression models for various products including credit cards, mortgages, and personal loans. Wrote model development documentation.
* Validated CCAR mortgage models, wrote mortgage validation report, discussed findings with developers, and presented to model risk senior management.

**UBS, Consultant/Contractor - New York, NY 07/2014 - 01/2015**

* Built Dodd-Frank Act Stress Test (**DFAST)** econometric time series predictive models for stress testing of securities backed lending.
* Successfully passed validation.
* Performed data remediation.

**DirecTV, Consultant/Contractor - New York, NY 04/2014 - 07/2014**

* Built predictive models allowing database marketing for individually targeted digital advertising.
* Evaluated effectiveness of marketing campaign.

**Boehringer Ingelheim Pharmaceuticals Inc., Consultant/Contractor - Ridgefield, CT 11/2013 - 03/2014**

* Supported clinical trials with SAS programming.
* Have worked for Boehringer Ingelheim in clinical trial programing three times, including 1997 and 2000-2005.

**GE Capital, Advanced Analytics Group, Consultant/Contractor - Norwalk, CT 09/2012 - 10/2013**

* Designed and built an econometric CCAR model building system which incorporated machine learning and documented each step for regulatory approval. Time series analysis.
* Used unsupervised machine learning for variable clustering as an option to achieve variable reduction.
* participated in building Markov models. Performed CART segmentation.
* Defined business and systems requirements and wrote Business Requirements Document (BRD).
* Used Agile to reduce product requirements backlog.

**Citigroup/Citibank, Consultant/Vice President - New York, NY 10/2005 - 10/2010**

* Validated risk ratings for commercial businesses.
* Put in Basel II for Citigroup Retail worldwide for over fifty countries and over one hundred lines of business.
* Built models/SAS macros calculating probability of default (PD), exposure at default (EAD), probability of write off, Loss Given Default (LGD), capital requirements, and Risk Weighted Assets (RWA) for Basel II retail products.
* Successfully consolidated new data streams from over 52 countries and over 100 lines of businesses; utilized for Basel II analysis and reporting.
* Helped validate Economic Risk Capital and Risk Weighted Assets.
* Created and used Monte Carlo data to improve Markov model roll rate loss forecasting.
* Coded programs for data quality, data integrity, and data remediation. SAS, SQL.

**Cablevision, Consultant/Contractor - Hicksville, NY 02/2012 - 06/2012**

**Bunge Ltd, Consultant/Contractor - White Plains, NY 07/2011 - 01/2012**

**Bank of America, Consultant/Contractor - Newark, DE 03/2010 - 05/2011**

Additional projects can be furnished upon request.